

Calico-Printing in China.

There are print-works in the city of Canton, some of which employ as many as fifty work people. The inhabitants of the suburbs who wish to have their calicoes printed in their houses engage itinerant workmen who carry about with them the necessary implements and perform the operations when required. The impression is made with blocks of considerable dimensions made of a scarce wood called "Tasp-mon," which is brought from Onom. The engraving of the block is very carefully executed and is expensive.—Fashion is so little liable to change in China, that the same blocks generally serve for about ten years; and the Chinese are so very jealous of foreigners that it is with difficulty and only with high prices that they will dispose of them fearing they might be imitated by European manufacturers. The habit of the Chinese to do most things the reverse manner to that in which they are done in Europe, is in no instance more remarkable than in the manufacture of printed goods. Instead of applying the block to the piece, the block is a fixture, and the piece is applied to the block. The operations are performed with slight variations the same at all places in China were printed goods are manufactured and those of Ningpo may serve as an illustration. The block being first adjusted two men stretch tightly and adjust the cloth over the engraved part of it; the form or relief is consequently made to protrude those parts of the cloth in contact with it beyond the general surface.—The cloth is then made to adhere to the block by beating it with a wooden mallet first prepared by making numerous punctures in it with pointed instruments. The workman then dips a suitable brush into water, and dexterously passes it over the surface of the cloth, in such a manner that the parts protruded by the figures of the block, only become moistened, which serves as a preparation for the reception of the colouring matter, and which is applied in precisely a similar manner, using color instead of water. The dry parts which have escaped the damping and coloring operations do not easily absorb, though sometimes stains occur,—which, however, are generally on the back part of the piece as the front is that which adheres to the block. It requires great precision a steady hand, and a quick eye on the part of the workmen, to touch with the brush only the forms and designs which are projected—imperfectly visible—by the block and which are intended only to receive the colour.

The workshops of Ningpo are very small. In rooms looking on to the street, workmen may be seen operating and on the same chamber finished prints suspended. In another room there may be probably, another table at work, a stove to dry the pieces and an apparatus for the color; and at the other end may be observed a species of laboratory—a miserable affair—and a kitchen. A Chinese printer can earn about two shillings a day.—The colors used are always of a definite character; they never produce any modified tints, being in perfect ignorance relative to the properties of mordants.

At Canton are manufactured very small handkerchiefs with borders, white ground and fillings of blue, at about two shillings per dozen. They also print larger handkerchiefs, with coloured grounds the pattern of large flowers, birds, &c., about one shilling each. They are shocking productions, and covered with stains. The only passable goods of Chinese manufacture are brought from "Liou-Tchou," which is the Manchester of China. The designs have quite an European character from their neatness and brilliancy of colour. Those of Changhai are very inferior. The patterns consist of very grotesque figures, and the cloth is thick and inferior.—Sometimes however fine English long cloths are employed. It is remarkable, that at the present day Chinese industry should have occasion to make such numerous calls upon that of other nations. Their yarns are often made from Indian cotton; calicoes from English yarn; and cloth which is printed or finished in China is frequently English long cloth.

It has been a question whether the cloth of

Chinese manufacture, known as "Nankin" in Europe, owed its peculiar shade of color to the chemical process of dyeing. It is ascertained that the article is made from cotton which has naturally the yellow tint of Nankin, and which remains unchanged after the processes of spinning and weaving. It is found on the banks of the Yang-tze-Liang, in the neighborhood of Nankin, and on the banks of the grand canal. Its color is attributed by many to the presence of oxide of iron in the soil where it grows; this will explain, if true, why, when these cotton plants are transplanted to another locality, they degenerate and produce white cotton. There are also cotton plants in the province of the Philippines which produce cotton of a red shade of color, and which also bear white cotton if transplanted to another soil. These plants, it is said, if retransplanted to their original soil, will again yield red cotton.

Diving Pigs.

The following scientific piece of information, says the editor of the Pottsville Emporium, Pa., "was recently published in the American Zoological Journal." It evidently shows that there are great things going on in the world yet—greater even than any geologist can boast of in all the terrestrial transformations by ancient fire and water. But to our tale and the Pottsville Pigs, which no doubt are of the Irish duck progeny that Nancy McGra had so much difficulty in learning to swim.

The writer after speaking of the greatest changes which occur in the physical character of animals, consequent upon change of situation, very seriously describes a new race of "web footed" Pigs, to be found in Pottsville, as follows:—

"The diving pigs which exist in the interior of Pennsylvania are remarkable. The town of Pottsville is situated at the point where the Norwegian creek empties into the river of Schuylkill. The creek is a rapid stream but the river, where the creek enters is rendered deep and sluggish by a dam below. The butchers of the town reside along the creek and are in the habit of throwing the offal into the stream which is washed into the river. A large number of Irish laborers live near the river keeping as is customary with them many pigs. These obtain their subsistence chiefly by diving for the offal at the bottom of the river, here about ten feet deep. A particular race of pigs called 'Divers,' has been bred in the place, differing from others in the fact that they are web-footed and are remarkable for their ability to dive and for the length of time that can remain under water. Their power in this way seems to increase with age. One male of two years of age was observed to remain under water more than thirty minutes; younger pigs, ten, fifteen and twenty minutes. An ordinary pig is drowned in less than one minute as ascertained by experiment. The peculiarities of the diving pigs are supposed to result from long practice and physical change transmitted and increased from generation to generation. The reason why they remain so long under water is, that they may there devour their food, which is in danger of being taken from them by other pigs which frequent the shore. The young of this amphibious breed take to the water with great alacrity at an early age and soon learn to dive. Nor do they strike their throats with their fore feet in swimming as do others of the race, by which they frequently destroy their lives.—These singular facts relating to this peculiar breed of pigs show in a striking manner the ability of nature to adapt herself to peculiar circumstances, and throws some light on the origin of the many varieties of the different species of animals."

Fenelon once a Missionary in Western New York.

This announcement will strike all with surprise. Robert Greenhow, Esq. of Washington, D. C. read a paper at the last meeting of the Historical Society, proposing to show the evidence of the fact that the Archbishop of Cambay and the illustrious author of "Telmachus," was once a missionary in the western part of this State.

Animal heat and Combustion.

The temperature of animal bodies is independent of the surrounding atmosphere, or other medium in which they live; for it is found that the heat of the human body is nearly the same all over the world. Living bodies exhibit a remarkable difference from unorganized matter in this respect: the latter soon require temperature similar to that of the bodies by which they are surrounded; for instance, a candle, if brought into a room, of which the temperature is very high, begins to melt; if some water is exposed to the air, when it is below 30 degrees, the water is frozen: thus, in both instances, we see how readily unorganized matter acquires the same temperature as that of the medium in which it is placed. This, however, is not the case with living bodies; they maintain an equal temperature, with very slight variations in summer and winter, at the Poles, and at the Equator. To do this it is necessary that they should be enabled, in a cold climate, to generate a great quantity of heat, and in a hot climate, to dispose of it readily.

The phenomenon of respiration is analogous, in many respects, to combustion. The blood circulating in the veins contain a considerable quantity of carbon; and before the blood can circulate through the body, to perform its various functions, it is necessary that this carbon should be removed. This is effected in the lungs. The blood is conveyed there, in an impure state, in very small blood vessels, which are permeable to the air, and are placed over small globules of thin cellular tissue, being the terminations of the wind-pipe. When we inspire the air, it is conveyed to these globules, or air-cells: and, passing through them, enters the blood: the oxygen of the air then combines with the carbon, and forms carbonic acid, just the same as it is formed when we burn a candle, in a glass under water. This carbonic acid, mixed with the nitrogen of the air, is given out when we expire our breath; in the case of the candle, the union of its carbon with oxygen occasions heat; and the same effect is produced in the lungs. The formation of carbonic acid there is attached with the evolution of heat, and this is conveyed by the blood to every part of the body.

The means by which the same temperature is maintained by the body, in cold weather as in hot, are vital; for when we are exposed to cold, an impulse is given to the function of respiration, by means of which, the blood is more frequently brought into contact with the air, and, consequently, a greater degree of heat is generated.

Spontaneous combustion can hardly be enumerated among the general sources of heat, since it occurs so seldom. Instances are recorded, however in the scientific journals, of several well authenticated instances, in which persons have been discovered burning slowly away, somewhat in the way that phosphorus burns, at a low temperature, in the atmosphere. It appears, indeed, as if the body underwent some change, by which a considerable portion of it was changed to phosphorus, or some substance very nearly resembling it. Phosphorus is principally formed from animal matter; and the supposition has therefore, some support. But, as the instances when this peculiar mode of generating heat have occurred but seldom, philosophers have not had sufficient opportunities of investigating the phenomenon satisfactorily.

Ice in Hot Ashes.

A traveller, who lately visited Mount Etna, gives the following account of a phenomenon which struck his notice: "The main crater is about five hundred feet deep at this time (so say the guides,) but I think this must be measured down the slope of the funnel. I could not, however, see to the bottom, owing to the volleys of sulphurous smoke whirling up ever and anon, accompanied by a rumbling noise, and occasionally by a slight vibration of the ground under foot. Here I found amid the warm ashes, on the slope of the crater within, heavy crystals of ice set all at one angle, and curved like a shark's teeth. I picked up one piece as big as a walnut and asked the guide if he could account for its presence. Far be it from him to give a "rationale" of anything of the sort; it would derogate from the dignity

of Etna. It reminded me of a chemical experiment played off by a French savant at one of the late "Scienziati" meetings. He made water freeze in a red hot cup. The silver or platina being brought to a red heat, a few drops of water are thrown in, which do not evaporate, but jump about. Sulphuric acid is now poured in, which in the act of boiling produces so intense a cold by the disengagement of its latent heat, that the drop of water at once turns to ice. I opine the chemical process here to be the same, only on Nature's grand scale. The morning mists supply the moisture, and within the crater there is no lack of sulphurous mixture boiling as in a retort; hence as hot fumes ascend, the crystals of ice are precipitated. If any one rejects this solution of mine, let him find a better, remembering he is to account for pieces of ice forming on a bed of warm ashes. The principles of "disengagement of latent heat" may also account for the severity of the cold felt on Etna, which is far greater than is due to its elevation."

The Unicorn.

M. Antoine d'Abbadie, says the London Athenaeum, writing to us from Cairo, gives the following account of an animal new to European science, which account he received from Baron Van Muller, who had recently returned to that city from Kordofan. "At Melpes in Kordofan," said the Baron, "where I stopped some time to make my collections, I met on the 17th day of April, 1848, a man who was in the habit of selling to me specimens of animals. One day he asked me if I wished for an A'nasa, which he described thus:—

It is the size of a small donkey, has a thick body and thin bones, coarse hair, and tail like a boar. It has a long horn on its forehead and lets it hang when alone but erects it immediately on seeing an enemy. It is a formidable weapon; but I do not know its exact length. The A'nasa is found not far from here (Melpes), towards the S. S. W. I have seen it often in the wild grounds; where the negroes kill it, and carry it home to make shields from its skin. This man was well acquainted with the rhinoceros, which he distinguished under the name of Ferit from the A'nasa. On June the 14th, I was at Kursi, also in Kordofan, and met there a slave merchant who was not acquainted with my first informer, and gave me spontaneously the same description of the A'nasa; adding that he had killed and eaten one not long before, and that its flesh was well-flavoured." Herr Rippell and M. Frosnel, adds M. d'Abbadie, have already spoken of a one-horned African quadruped; and I have with me some notes which tend to the establish the existence of perhaps two different kinds.

Fossil Foot Prints.

The Corpus Christi (Texas) Star, says that a number of singular foot prints have recently been found in the limestone strata on the Brushy, resembling human foot prints, but of a gigantic size. They are imbedded in the soft argillaceous limestone and are as distinct as if they had been made in plastic clay. A gentleman who visited them a few months since states the toes and the print of the feet are so distinct that there is scarcely a doubt that they were made by a human being, who must have rivalled Goliath in size. The stride is so large that a man of ordinary size can with difficulty jump from one foot print to another. The limestone in which they are found, we believe, is similar to that which extends through Austin, New Braunfels and Bexar, and from the quarries in this rock most of the stones in the Alamo and other buildings of Bexar were obtained. The strata contains many marine fossils, among which are the ammonite, nautilus, gryphe, etc.—These foot marks, like those discovered in red sandstone formations were probably made by an extinct species of birds or ornithionites.

Many years since, Governor Childs, of Berkshire, then a young man, was bitten by a mad dog which resulted in symptoms of hydrophobia. His father, an eminent physician, gave mercury in doses sufficient to produce salivation; and, though the patient suffered dreadfully, he was, through the untiring efforts of his father, finally cured.